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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,253	07/03/2001	Claude Basso	RAL920000099US1	1929

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EXAMINER	
NGUYEN, CINDY	
ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/898,253	BASSO ET AL.	
	Examiner	Art Unit	
	Cindy Nguyen	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2004* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments(filed 08/20/2004)

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

the claimed invention is directed to non-statutory subject matter 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological art. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological art fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a method claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, claim 1 only recites an method for performing a pattern match search data a data string. The recited steps of performing a pattern match search data a data string does not apply involve use, or advance the technological arts since all the recited steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to perform a pattern match searching, non of the recited steps are directed to anything in the technological arts. Looking at the claim as a whole, nothing the body of the claim recites any structure or functionality to suggest that a computer performs the recited steps. These claim are deemed to be directed to non-statutory subject matter.

1. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 6, 7, 9, 10-12, 14, 15, 17- 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Praitis et al. (US 6594697) in view of Schneider (US 6338082) (Schneider 082).

Regarding claims 1, 9 and 17, Praitis discloses: a method, a system and a computer program product for performing a pattern match search for a data string having a plurality of characters separated by delimiters; said method comprising: defining a subset of characters as delimiters such that all remaining characters are defined as non-delimiters (col. 13, lines 32-47 and col. 14, lines 13-27, Praitis);

constructing a search key (as parsing in URL for searching) by: generating a full match search increment comprising the binary representation of a data string element (as code stores each element of URL up to second delimiter), wherein said data string element includes a plurality of non-delimiters between a pair of delimiters (col. 13, lines 32-47 and col. 14, lines 13-27, Praitis); and

However, Praitis didn't discloses: concatenating a pattern search prefix to said full match search increment to form said search key, wherein said pattern search prefix is a cumulative pattern search result of each previous full match search increment. On the other hand, Schneider discloses: concatenating a pattern search prefix to said full match search increment to form said search key, wherein said pattern search prefix is a cumulative pattern search result of each previous full match search increment (col. 11, lines 34-52, Schneider)

performing a full match search within a lookup table utilizing said search key (col. 15, lines 43-62, Schneider); in response to finding a match within said lookup table,

returning to said step of constructing a search key (col. 15, lines 43-62, Schneider); and in response to not finding a match within aid lookup table, utilizing previous full match search result to process said data string ((col. 14, lines 66 to col. 15, lines 17, Schneider). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the steps to performing the full match as recited above in the system of Praitis as taught by Schneider. The motivation being to improved technique for parsing searching in character string to determine the specified characteristic identifier and the specified characteristic value.

Regarding claims 2, 10 and 18, most of the limitations of these claims have been noted in the rejection of claims 1, 9 and 17 above, respectively. In addition, Praitis/ Schneider discloses: wherein said constructing a search key is preceded by pointing to a character within said data string (col. 29, lines 59 to col. 30, lines 6, Schneider).

Regarding claims 3, 11 and 19, most of the limitations of these claims have been noted in the rejection of claims 2, 10 and 18 above, respectively. In addition, Praitis/ Schneider discloses: wherein said constructing a search key further comprises:

evaluating said character within said data string to determine whether or not said character is a delimiter (col. 11, lines 9-31 and lines 65 to col. 12, lines 13, Schneider);

in response to a determination that said character within said data string being a delimiter: delivering a full match search increment into a search key register, wherein said search increment comprises a binary representation of all non-delimiters between said delimiter and an immediately preceding delimiter (col. 12, lines 14-28, Schneider); and

concatenating said pattern search prefix to said search increment within said search key element (col. 11, lines 34-52, Schneider);

in response to a determination that said character within said data string not being a delimiter, appending a binary representation of said character to said search increment; and incrementing said pointer (col. 11, lines 34-52, Schneider).

incrementing said pointer (col. 11, lines 44-47, Schneider)

Regarding claims 4, 12 and 20, most of the limitations of these claims have been noted in the rejection of claims 1, 9 and 17 above, respectively. In addition, Praitis/ Schneider discloses: wherein said method further includes updating said pattern search prefix in response to finding a matching pattern (col. 11, lines 35-52, Schneider).

Regarding claims 6, 14 and 22, most of the limitations of these claims have been noted in the rejection of claims 1, 9 and 17 above, respectively. In addition, Praitis/ Schneider discloses: wherein said data string is a Universal Resource Indicator address, and said data string element is a URI element (col. 11, lines 34-52, Schneider).

Regarding claims 7, 15 and 23, most of the limitations of these claims have been noted in the rejection of claims 6, 14 and 22, above, respectively. In addition, Praitis/ Schneider discloses: wherein said delimiters include period characters or slash characters (col. 25, lines 27-38, Schneider).

3. Claims 5, 8, 13, 16 and 21, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Praitis et al. (US 6594697) in view of Schneider (US 6338082) (Schneider)and further in view of Guha (U.S 5897637).

Regarding claims 5, 13 and 21, most of the limitations of these claims have been noted in the rejection of claims 1, 9 and 17 above, respectively. However, Praitis/ Schneider didn't disclose: determining whether or not a full match for said search key exists within said a hash table by: hashing said search key to produce a hash key result; indexing a hash table utilizing said hash key result to find a matching stored pattern; and resolving collisions in said hash table utilizing a pattern search control block. On the other hand, Guha discloses: disclose: determining whether or not a full match for said search key exists within said a hash table (col. 7, lines 1-24, Guha) by: hashing said search key to produce a hash key result (col. 7, lines 30-51, Guha); indexing a hash table utilizing said hash key result to find a matching stored pattern (col. 6, lines 63 to col. 7, lines 13, Guha); resolving collisions in said hash table utilizing a pattern search control block (col. 8, lines 43-56, Guha). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include step determining whether or not a full match for said search key exists within said a hash table by hashing said search key to produce a hash key result, indexing a hash table and resolving collisions in said hash table utilizing a pattern search control block in the combination system of Praitis/ Schneider as taught by Guha. The motivation being to improved parsing searching by using hashing technique in character string to determine the specified characteristic identifier and the specified characteristic value.

Regarding claims 8, 16, 24, most of the limitations of these claims have been noted in the rejection of claims 6, 14 and 22, above, respectively. In addition, Praitis/ Schneider /Guha discloses: wherein said step of constructing a search key further include: initializing a URI pointer to a first character within said first URI element (col. 11, line s32-54, Schneider); and initializing said pattern search prefix to zero (col. 11, line s32-54, Schneider); scanning an IP data packet to determine a first URI element to by parsed (col. 11, lines 34-51, Schneider).

4. Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CN

Cindy Nguyen
February 17, 2005

Frantz Coby

FRANTZ COBY
PRIMARY EXAMINER